

303 Hex .500

## Work Order ID 114882

March-17-14 10:03:57 AM

\*114882\*

Page 1

Item ID: D3622-3

Accept

\*N900040100\*

Setup Start

\*NS1\*

Revision ID:

Stop

\*NS2\*

Item Name: Ball Stud

Start Date: 3/17/14 Start Qty: 40.00 \*40\*

Required Date: 3/31/14 Req'd Qty: 40.00 \*40\*

Reference:

Approvals: Process Plan: MUS Date: 14-03-17 Tooling:

QC: Date: SPC (Y/N):

Cust Item ID:

Customer:

Run Start

\*NR1\*

Stop

\*NR2\*

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours
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Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
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Draw Nbr Revision Nbr

D3622 C 0.00

100 \*100\* 0.00

Hardinge Memo Turn as per Dwg D3622 &amp; Folio FA846

Hardinge CNC Lathe Small Dwg Rev: N/A Folio Rev: C

Deburr as per Dwg

110 QC2- Inspect parts off machine FAI/FAIB 0.00

\*110\* QC Memo 0.00

Quality Control

40 / / 14/04/21

40 / / 14/04/16

DQA:

Date:



## WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed:

Date:

Work Order update only

Work Order: _____	<b>DISPOSITION</b>			<b>AGAINST DEPARTMENT/PROCESS</b>					
Part No. _____	Rework <input type="checkbox"/>	Skid-tube <input type="checkbox"/>	Crosstube <input type="checkbox"/>	Water Jet <input type="checkbox"/>	Engineering <input type="checkbox"/>				
NCR No. _____	Scrap <input type="checkbox"/>	Machining <input type="checkbox"/>	Small Fab <input type="checkbox"/>	Prod. Eng. Coor. <input type="checkbox"/>	Quality <input type="checkbox"/>				
	Use-as-is <input type="checkbox"/>	Thermoforming <input type="checkbox"/>	Finishing <input type="checkbox"/>	Rec/Store/Packaging <input type="checkbox"/>	Other <input type="checkbox"/>				
	Suspected Unapproved <input type="checkbox"/>	Large Fab <input type="checkbox"/>	Composite <input type="checkbox"/>	Supplier <input type="checkbox"/>					
Root Cause	Date	Step	Qty	Description of work order update or non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector
Design									
Doc/Data									
Equip/Tooling									
Handling/Pre									
Material									
Operator									
Offset/Setup									
Process									
Supplier									
Training									
Transport									
Unapproved									
<b>FAULT CATEGORY</b>									
Landing Gear	Bending <input type="checkbox"/>	General			Folio/Program <input type="checkbox"/>	Outside Dimensions <input type="checkbox"/>	Pressure/Forced <input type="checkbox"/>		
	Centre Not Concentric <input type="checkbox"/>	Bend <input type="checkbox"/>	BOM/Route <input type="checkbox"/>	Grain <input type="checkbox"/>	Over/Under tolerance <input type="checkbox"/>	Set-up <input type="checkbox"/>			
	Cracks <input type="checkbox"/>	Broken/Damage/Defect <input type="checkbox"/>	Burrs <input type="checkbox"/>	Hardware <input type="checkbox"/>	Part Incorrect <input type="checkbox"/>	Temperature/Cure <input type="checkbox"/>			
	Crimp/Kink/Ripple/Wave <input type="checkbox"/>	Contamination <input type="checkbox"/>	Countersink <input type="checkbox"/>	Inspection Incomplete/Unqualified <input type="checkbox"/>	Part Lost/Missing <input type="checkbox"/>	Weld <input type="checkbox"/>			
	Cuffs <input type="checkbox"/>	Cut Too Short <input type="checkbox"/>	Drawing <input type="checkbox"/>	Instructions Incomplete/Unclear <input type="checkbox"/>	Part Moved <input type="checkbox"/>	Wrong Stock Pulled <input type="checkbox"/>			
	Crushing <input type="checkbox"/>	Drill Holes <input type="checkbox"/>	Drill Holes <input type="checkbox"/>	Misaligned/off center <input type="checkbox"/>	Positioned Wrong <input type="checkbox"/>				
	Heat Treat <input type="checkbox"/>	Finish <input type="checkbox"/>	Fit/Function <input type="checkbox"/>	Mislabeled <input type="checkbox"/>	Power Loss/Surge <input type="checkbox"/>	Other <input type="checkbox"/>			
	Inspection Strip in Tube <input type="checkbox"/>			Misread <input type="checkbox"/>					
	Marks/Chatter <input type="checkbox"/>			Off-set <input type="checkbox"/>					
	Turning Sequence <input type="checkbox"/>			Out of Calibration <input type="checkbox"/>					
	Wave/Twist in Tube <input type="checkbox"/>			Out of Sequence <input type="checkbox"/>					

Work Order ID 114882

March-17-14 10:03:57 AM

\*114882\*

Page 2

Item ID: D3622-3

Accept

\*N900040100\*

Setup Start

\*NS1\*

Revision ID:

Stop

\*NS2\*

Item Name: Ball Stud

Start Date: 3/17/14 Start Qty: 40.00 \*40\*

Cust Item ID:

Required Date: 3/31/14 Req'd Qty: 40.00 \*40\*

Customer:

Reference:

Approvals: Process Plan:

Date:

Tooling:

Date:

Run Start

\*NR1\*

- QC:

Date:

SPC (Y/N):

Date:

Stop

\*NR2\*

Sequence ID/  
Work Center ID

Operation  
Description

Set Up/  
Run Hours

Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
			40	0		DAS 40 9-89

120

\*120\*

QC

Quality Control

QC8- Inspect parts - second check

0.00

130

\*130\*

Packaging

Packaging

Identify as per dwg & Stock Location: 87058

0.00

40X

14-4-22

DAS

26

9-89

140

\*140\*

QC

Quality Control

QC21- Final Inspection - Work Order Release

0.00

M65 14-04-22

(H) 14-04-22

DQA: \_\_\_\_\_ Date: \_\_\_\_\_



## WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: \_\_\_\_\_ Date: \_\_\_\_\_

Work Order update only 

Work Order: _____	<b>DISPOSITION</b>	<b>AGAINST DEPARTMENT/PROCESS</b>							
Part No. _____	Rework <input type="checkbox"/>	Skid-tube <input type="checkbox"/>	Crosstube <input type="checkbox"/>	Water Jet <input type="checkbox"/>	Engineering <input type="checkbox"/>				
NCR No. _____	Scrap <input type="checkbox"/>	Machining <input type="checkbox"/>	Small Fab <input type="checkbox"/>	Prod. Eng. Coor. <input type="checkbox"/>	Quality <input type="checkbox"/>				
	Use-as-is <input type="checkbox"/>	Thermoforming <input type="checkbox"/>	Finishing <input type="checkbox"/>	Rec/Store/Packaging <input type="checkbox"/>	Other <input type="checkbox"/>				
	Suspected Unapproved <input type="checkbox"/>	Large Fab <input type="checkbox"/>	Composite <input type="checkbox"/>	Supplier <input type="checkbox"/>					

Root Cause	Date	Step	Qty	Description of work order update or non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector
Design									
Doc/Data									
Equip/Tooling									
Handling/Pre									
Material									
Operator									
Offset/Setup									
Process									
Supplier									
Training									
Transport									
Unapproved									

### FAULT CATEGORY

<b>Landing Gear</b> <ul style="list-style-type: none"> <li><input type="checkbox"/> Bending</li> <li><input type="checkbox"/> Centre Not Concentric</li> <li><input type="checkbox"/> Cracks</li> <li><input type="checkbox"/> Crimp/Kink/Ripple/Wave</li> <li><input type="checkbox"/> Cuffs</li> <li><input type="checkbox"/> Crushing</li> <li><input type="checkbox"/> Heat Treat</li> <li><input type="checkbox"/> Inspection Strip in Tube</li> <li><input type="checkbox"/> Marks/Chatter</li> <li><input type="checkbox"/> Turning Sequence</li> <li><input type="checkbox"/> Wave/Twist in Tube</li> </ul>	<b>General</b> <ul style="list-style-type: none"> <li><input type="checkbox"/> Bend</li> <li><input type="checkbox"/> BOM/Route</li> <li><input type="checkbox"/> Broken/Damage/Defect</li> <li><input type="checkbox"/> Burrs</li> <li><input type="checkbox"/> Contamination</li> <li><input type="checkbox"/> Countersink</li> <li><input type="checkbox"/> Cut Too Short</li> <li><input type="checkbox"/> Drawing</li> <li><input type="checkbox"/> Drill Holes</li> <li><input type="checkbox"/> Finish</li> <li><input type="checkbox"/> Fit/Function</li> </ul>	<ul style="list-style-type: none"> <li><input type="checkbox"/> Folio/Program</li> <li><input type="checkbox"/> Grain</li> <li><input type="checkbox"/> Hardware</li> <li><input type="checkbox"/> Inspection Incomplete/Unqualified</li> <li><input type="checkbox"/> Instructions Incomplete/Unclear</li> <li><input type="checkbox"/> Misaligned/off center</li> <li><input type="checkbox"/> Mislabeled</li> <li><input type="checkbox"/> Misread</li> <li><input type="checkbox"/> Off-set</li> <li><input type="checkbox"/> Out of Calibration</li> <li><input type="checkbox"/> Out of Sequence</li> </ul>	<ul style="list-style-type: none"> <li><input type="checkbox"/> Outside Dimensions</li> <li><input type="checkbox"/> Over/Under tolerance</li> <li><input type="checkbox"/> Part Incorrect</li> <li><input type="checkbox"/> Part Lost/Missing</li> <li><input type="checkbox"/> Part Moved</li> <li><input type="checkbox"/> Positioned Wrong</li> <li><input type="checkbox"/> Power Loss/Surge</li> </ul>	<ul style="list-style-type: none"> <li><input type="checkbox"/> Pressure/Forced Set-up</li> <li><input type="checkbox"/> Temperature/Cure</li> <li><input type="checkbox"/> Weld</li> <li><input type="checkbox"/> Wrong Stock Pulled</li> <li><input type="checkbox"/> Other</li> </ul>
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# Picklist Print

Page 1

March-17-14 10:04:03 AM

Work Order ID: 114882

\*114882\*  
\*D3622-3\*

Parent Item: D3622-3

Parent Item Name: Ball Stud

Start Date: 3/17/14

Required Date: 3/31/14

Start Qty: 40.00

Required Qty: 40.00

Comments: IPP RevA: New issue DD verified by:EC

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
M303H0.500		Purchased	No			100	f	15.2500	0.108	5			**

\*M303H0.500\*

303 HEX BAR .500

Location	Loc Qty	Loc Code
MAT018	15.25	3,739
m127464	3.25	
m128496	12	

JJP  
14/04/21

DQA:

Date:



## WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed:

Date:

Work Order update only 

Work Order: _____	<b>DISPOSITION</b>		
Part No. _____	Rework <input type="checkbox"/>	Skid-tube <input type="checkbox"/>	Crosstube <input type="checkbox"/>
NCR No. _____	Scrap <input type="checkbox"/>	Machining <input type="checkbox"/>	Water Jet <input type="checkbox"/>
	Use-as-is <input type="checkbox"/>	Thermoforming <input type="checkbox"/>	Prod. Eng. Coor. <input type="checkbox"/>
	Suspected Unapproved <input type="checkbox"/>	Large Fab <input type="checkbox"/>	Rec/Store/Packaging <input type="checkbox"/>
		Composite <input type="checkbox"/>	Supplier <input type="checkbox"/>

### AGAINST DEPARTMENT/PROCESS

Engineering <input type="checkbox"/>
Quality <input type="checkbox"/>
Other <input type="checkbox"/>

Root Cause	Date	Step	Qty	Description of work order update or non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector
Design									
Doc/Data									
Equip/Tooling									
Handling/Pre									
Material									
Operator									
Offset/Setup									
Process									
Supplier									
Training									
Transport									
Unapproved									

### FAULT CATEGORY

<b>Landing Gear</b>		<b>General</b>									
		<input type="checkbox"/> Bending	<input type="checkbox"/> Bend	<input type="checkbox"/> Folio/Program	<input type="checkbox"/> Outside Dimensions	<input type="checkbox"/> Pressure/Forced					
		<input type="checkbox"/> Centre Not Concentric	<input type="checkbox"/> BOM/Route	<input type="checkbox"/> Grain	<input type="checkbox"/> Over/Under tolerance	<input type="checkbox"/> Set-up					
		<input type="checkbox"/> Cracks	<input type="checkbox"/> Broken/Damage/Defect	<input type="checkbox"/> Hardware	<input type="checkbox"/> Part Incorrect	<input type="checkbox"/> Temperature/Cure					
		<input type="checkbox"/> Crimp/Kink/Ripple/Wave	<input type="checkbox"/> Burrs	<input type="checkbox"/> Inspection Incomplete/Unqualified	<input type="checkbox"/> Part Lost/Missing	<input type="checkbox"/> Weld					
		<input type="checkbox"/> Cuffs	<input type="checkbox"/> Contamination	<input type="checkbox"/> Instructions Incomplete/Unclear	<input type="checkbox"/> Part Moved	<input type="checkbox"/> Wrong Stock Pulled					
		<input type="checkbox"/> Crushing	<input type="checkbox"/> Countersink	<input type="checkbox"/> Misaligned/off center	<input type="checkbox"/> Positioned Wrong	<input type="checkbox"/> Other					
		<input type="checkbox"/> Heat Treat	<input type="checkbox"/> Cut Too Short	<input type="checkbox"/> Mislabeled	<input type="checkbox"/> Power Loss/Surge						
		<input type="checkbox"/> Inspection Strip in Tube	<input type="checkbox"/> Drawing	<input type="checkbox"/> Misread							
		<input type="checkbox"/> Marks/Chatter	<input type="checkbox"/> Drill Holes	<input type="checkbox"/> Off-set							
		<input type="checkbox"/> Turning Sequence	<input type="checkbox"/> Finish	<input type="checkbox"/> Out of Calibration							
		<input type="checkbox"/> Wave/Twist in Tube	<input type="checkbox"/> Fit/Function	<input type="checkbox"/> Out of Sequence							

DART AEROSPACE LTD	Work Order:	114882
Description: Ball Stud	Part Number:	D3622-3
Inspection Dwg: D3622      Rev: C		Page 1 of 1

# FIRST ARTICLE INSPECTION CHECKLIST

DAS

Measured by:	<i>MSP</i>	Audited by:	<b>40</b> <b>9-89</b>	Preliminary Approval:	
Date:	14/04/16	Date:	14/04/21	Date:	

Rev	Date	Change	Revised by	Approved
A	09.10.22	New Issue	KJ	
B	11.02.18	Dwg Rev updated	KJ	
C	13.11.04	Major Ø Min/Max revised	KJ	

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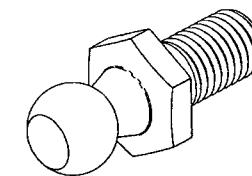
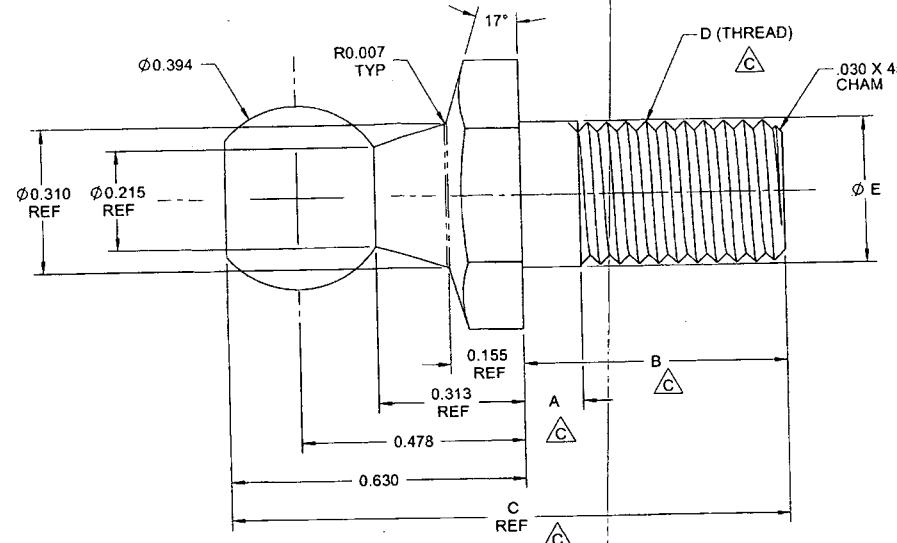
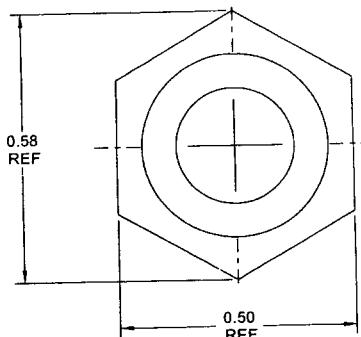
4

3

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1

D



D3622-1 BALL STUD SHOWN

D

C

C

B

B

PART NUMBER	DIM A	DIM B	DIM C	WEIGHT (LBS)	THREAD D	Ø E MIN MAX
D3622-1	0.125	0.563	1.19	0.03	0.3125-24UNF-3A	0.3053 0.3125
D3622-3	0.125	0.563	1.19	0.03	0.1875-32UNF-3A	0.1840 0.1900
D3622-5	0.090	0.900	1.53	0.04	0.3125-24UNF-3A	0.3053 0.3125
D3622-7	0.060	0.330	0.96	0.03	0.3125-24UNF-3A	0.3053 0.3125
D3622-9	0.090	1.160	1.79	0.04	0.3125-24UNF-3A	0.3053 0.3125
D3622-11	0.060	N/A	0.69	0.02	NOT THREADED	0.270 0.300
D3622-13	0.090	0.680	1.31	0.03	0.3125-24UNF-3A	0.3053 0.3125

D3622-X BALL STUD

C

D3622-11 BALL STUD SHOWN

RELEASED  
2010-09-23  
JW

A

NOTES:

- 1) MATERIAL: AISI 303 HEX BAR  
REF DART SPEC M303H0.500
- 2) FINISH: N/A
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: IDENT P/N D3622-X & B/N PER QSI 044
- 7) WEIGHT: SEE D3622-X TABLE

114882 ML5  
1403-17

C	SHEET 1: ADD -5, -7, -9, -11 & -13. ADD D3622-X TABLE. SHEET 2 DELETED	JPH	10.07.20
B	ADD -3 (SHEET 2)	HS	09.09.18
A	NEW ISSUE	MB	07.04.13
REV.	DESCRIPTION	BY	DATE
DESIGN	JPH	DART AEROSPACE LTD HAWKSBURY, ONTARIO, CANADA	
DRAWN	JPH	DRAWING NO. <b>D3622</b> REV. C SHEET 1 OF 1	
CHECKED			
MFG. APPR.			
APPROVED			
DE APPR.		TITLE <b>BALL STUD</b> SCALE NTS	
DATE	10.07.20	COPYRIGHT © 2009 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO OTHER PERSONS WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD	

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